

# W5YI REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

## Dits & Bits

Fred Maia, W5YI, Editor, P.O. Box 10101, Dallas, TX 75207

### ★ In This Issue ★

Novices Get New Voice Privileges!  
January 1987 VE Program Statistics  
February Amateur Licensing Stats  
Kenwood Expands to Larger Facility  
HF Broadcasting WARC Concludes!  
FCC Destroys Over 400 CB Linears  
League Seeks Comment Extension  
New FCC Commissioner Speculation  
Common Questions on Novice Test  
IBM to Introduce New Computers  
More on Home Television Shopping  
Videocipher II Descrambler Suit  
And much, much more!

VOL. 9, Issue #7

\$1.50

PUBLISHED TWICE A MONTH

April 1, 1987

## Novice Enhancement is here!

On Friday evening, March 20th, Novice level amateur operators began using their new voice privileges on the HF, VHF ...and to a lesser extent, the UHF ham airwaves. Ten meter sideband and operating through 220-MHz repeaters proved quite popular! Some Novices were quite timid at first, others happily just "plowed" on in. For most, it was the first time that they actually felt like a "ham."

Novice Enhancement took effect at 0001-GMT on March 21st, ...actually the evening before since the GMT day begins at 7:00 p.m. EST. The April edition of every major ham magazine (which is just now hitting the street) carried the big news of Docket 86-161!

The FCC saw fit to issue "Fact Sheet No. 201" entitled "Information about the Amateur Radio Service." In it they detailed the privileges available to the Novice operator and the requirements to obtain the needed license. "Its elementary written test and its 5 words-per-minute telegraphy requirement make it the ideal license to become quickly involved in amateur radio," they said.

The objective of Novice Enhancement, of course, is to revitalize the Amateur Radio Service. The early indication is that it will do just that! We will be keeping track of the Novice stats and will let you know how ham radio catches on with the newcomer!

For the record, here is the number of applicants that entered the amateur service at the Novice Level for the last five months - with comparison with the prior two years. (These figures do not include new amateurs that entered at the Technician class and higher.)

### NEW NOVICE LEVEL AMATEURS BY YEAR

Month:	1984/85	1985/86	1986/87
October	895	1196	793
November	1189	818	1282
December	1408	2233	1765
January	1262	1364	2139
February	1146	1633	1684
Total:	5900	7244	7,663
Percent Increase:		+22.8%	+5.8%

Remember that it now takes two General (or higher) Class VE's to test a new Novice and you must use the new Novice 302 question pool. The new pool is divided into 30 different sections ...you must select one question from each. You may give the test orally if you care to.

We also have available a Novice Examination Kit that contains ten different 5-wpm code tests, the 302-question Novice Q&A manual for the applicant to study, several different Novice written tests ...and a supply of the new Form 610. (Cost: \$9.95 postpaid.)



# W5YI REPORT.....

Page #2

April 1, 1987

## JANUARY 1987 VE PROGRAM STATISTICS

	January	1985	1986	1987
No. of VEC's		52	76	76
<b>Sessions Held:</b>				
Test Sessions Per VEC:	4.21	3.50	3.79	
No. Persons Per Session:	16.73	11.07	10.20	
ARRL-VEC Sessions		50.0%	48.3%	
W5YI-VEC		13.5%	24.0%	
C.Ala.-VEC		8.8%	8.0%	
DeVry.-VEC		6.0%	5.9%	
All Others:		21.7%	13.8%	
Total Sessions/Month:	219	266	288	
Year-to-Date Sessions:	219	266	288	
<b>Elements Administered:</b>				
ARRL-VEC Elements		53.4%	55.8%	
W5YI-VEC		14.9%	22.2%	
C.Ala.-VEC		7.0%	6.0%	
DeVRY-VEC		4.1%	4.4%	
All Others:		20.6%	11.6%	
No. Elements Per Person	1.44	1.43	1.49	
Total Elements/Month:	5290	4211	4386	
Year-to-Date Elements:	5290	4211	4386	
<b>Applicants Tested:</b>				
Applicants Per Session:	16.73	11.07	10.20	
ARRL-VEC Applicants		51.7%	53.3%	
W5YI-VEC		16.1%	22.6%	
C.Ala.-VEC		5.4%	5.8%	
DeVRY-VEC		4.3%	5.0%	
All Others		19.7%	13.3%	
Total Applicants/Month:	3664	2945	2939	
Year-to-Date Applicants:	3664	2945	2939	
Pass Rate/Month (All)	51.3%	62.6%	61.3%	
Pass Rate: W5YI (Jan.)	58.1%	63.1%	56.3%	

[Source: FCC, Personal Radio Br., Wash. D.C.]

(Note: The VE/VEC program continues to do well and seems to have pretty much stabilized. The four principal VEC's coordinate nearly 90% of all amateur testing above the Novice level. The League accounts for about half of all testing with the W5YI-VEC program showing the most growth. The smaller VEC's are coordinating substantially less examinations. The size of the average test session is smaller. FCC considers each call sign district to be a separate VEC - thus national-in-scope VEC's such as ARRL/DeVRY-/W5YI are considered to be 13 VEC's each.

### Amateur Licenses Processed by FCC:

Feb.	1982	1983	1984	1985	1986	1987
Total	7480	13743	10979	10080	13480	10682

## FEBRUARY AMATEUR LICENSING STATS....

	February 1985	1986	1987
First Time Amateurs	1242	1889	1889
Novice Upgraded	747	1078	1106
Technician Upgraded	357	342	329
General Upgraded	224	414	355
Advanced Upgraded	126	248	257
<b>Total Upgraded</b>	<b>1454</b>	<b>2082</b>	<b>2047</b>
Novice Renewals(*)	444	379	381
Total Renewals	3647	4773	4749
Failed to Renew	554	1603	689
Change in Census	+688	+1586	+1200
Indiv. Amateurs	410850	418201	422082
Club/Military/RACES	2876	2731	2535
Active Stations	413726	420932	424617
Change in Census		1.74%	.9%

(\* NOTE: Only about one-third of Novice operators ever renew their licenses.)

## AMATEUR CENSUS BY LICENSE CLASS....

	Extra	Advan.	Gener.	Tech.	Novice	Total
<b>Feb. 1987</b>						
41462	97727	115535	85913	81445	422082	
9.8%	23.2%	27.4%	20.4%	19.3%		
<b>Feb. 1986</b>						
38931	98357	117407	84478	79028	418201	
9.5%	23.5%	28.1%	20.2%	18.9%		
<b>Feb. 1985</b>						
36303	97518	116874	80658	79497	410850	
8.8%	23.7%	28.4%	19.6%	19.4%		

[Source: FCC Licensing Facility/Gettysburg PA.]

## NEW FM BROADCAST BAND UNDER STUDY

Apparently "FM2" - the new FM broadcast band proposal at 225-230 MHz (just above the 1.25 meter amateur band) is getting some serious consideration from the FCC. (See our newsletter of January 15th)

WRNJ - "Radio New Jersey" submitted the petition for the new band last November. The FCC's Office of Engineering and Technology (OET) and the NTIA (National Telecommunications and Information Administration) are interested in the proposal and are looking into the legalities.

RNJ, a 2.5 KW daytime AM'er, asked

10 or more Quantity \$3.00 plus postage  
 5-9 \$3.50  
 1 Ea. \$4.00  
 Test Manual: Novice  
 HOLDING AMATEUR RADIO OPERATOR CLASSES? We have them!  
 and need low-priced student manuals?  
 W5YI-VEC  
 P.O. Box #10101-N



the FCC to allow AM radio stations with poor nighttime coverage to move to the FM2 band and to eventually discontinue their AM operations. The NTIA has recommended that the FCC issue a Notice of Inquiry on the matter.

The OET, by the way, is the same FCC office that issued the NPRM proposing to turn the first two megahertz of the 220-MHz ham band over to narrow band land mobile interests in response to their petitions - even though some of the petitioners did not ask for amateur spectrum. Let's hope that they don't issue rulemaking lopping off two megahertz off of the other end of the 220-MHz band for FM broadcasting!

.....

● Kenwood is expanding and moving into a bigger and better facility! Its new building spans over ten acres in Carson, California, and provides 232,000 square feet of warehouse and office space for its 200 employees. Another 60,000 square feet is reserved for future expansion.

This move represents the final phase of Kenwood's consolidation process. Previously its Consumer Electronics (Kenwood Electronics) and Communications (Trio-Kenwood Ham/Land Mobile) Division were housed in separate offices.

Kenwood also announced the formation of a brand new division - the Test Equipment Group. The new office is located at 2201 E. Dominguez Street in Carson (90810). The telephone number (213) 639-9000 remains the same.

● Icom has introduced a new IC-761-HF 100-watt (SSB/CW/FSK/SSTV) 100% duty cycle base station transceiver. The IC-761 will transmit on all authorized (and proposed) ham bands from 160 through 10 meters and receive continuously from 100 kHz to 30 megs. Frequencies may be entered via the main tuning knob, entered from a front keypad or even from your home computer via an interface! It has all the bells and whistles ....32 memory channels, two VFO's, built in CW filter and electronic keyer and more! The unit should be available in April, but is so new ICOM doesn't know the pricing yet! Tel. (206) 454-8155

## HF BROADCASTING WARC ENDS IN GENEVA

On March 7th, the shortwave WARC concluded and the U.S. delegation returned. Leonard Marks, the Washington communications attorney that served as chairman of the delegation, said at a press conference last Tuesday that the status quo would be retained at least for five years.

The shortage of HF broadcast frequencies remains, however. The third world countries, led by the Arab nations, are insisting that shortwave broadcast channels be systematically allocated by an impartial computer. A recent test of that system was deemed a failure by most of the 116 countries in attendance. The number and quality of frequencies generated were said to be inadequate.

Another systematic HF broadcast frequency assignment system will be tested between 11 and 26 MHz after the existing software is modified. In addition, modified coordination procedures will be put into effect. Software programming will take some 2½ years ...the HF frequency assignment test of the computer another 6 months. The results of the test will be the subject of the next HF Broadcast WARC to be held in 1992.

In the meantime, the HF broadcast services of the United States (Voice of America, Radio Free Europe, Radio Liberty) can proceed with their modernization program.

While the HF amateur bands seem safe - at least until 1992, there was agreement among the various delegations that additional spectrum is required for shortwave broadcasting. Leonard Marks discussed the possibility of moving some of the nonbroadcast services (he specifically mentioned aeronautical and land mobile) out of the 6 to 26 MHz band and into satellite frequencies. The WARC members also want to replace AM double sideband broadcasting with SSB by the year 2015.

The Soviet Union and eastern European countries were admonished for intentional interference to the shortwave broadcasts of other nations. At press time, it is not known if the SWL's got a chance to make their anti-woodpecker (O-T-H radar) presentation.



# W5YI REPORT.....

Page #4

April 1, 1987

## FCC DESTROYS SEIZED CB LINEARS....

FCC officials from the Norfolk, VA, field office and U.S. Marshalls from Asheville, N.C., witnessed the destruction of over 400 CB linear amplifiers and associated equipment on March 9th. The CB gear weighed over one and one-half tons and had a value of about \$140,000.

The CB linear amplifiers, one of the major sources of radio and television interference, were confiscated under a search warrant in the criminal prosecution of an amplifier manufacturer in Shelby, North Carolina. It was one of the largest seizures of illegal CB devices ever taken in an investigation by FCC agents.

Following a guilty plea to charges -- including the manufacture and sale of illegal amplifier equipment -- in addition to other penalties, the defendant, Douglas G. Brown, (doing business as D&D Incorporated), was ordered to forfeit the seized property to the U.S. Government. Brown was sentenced to a one year suspended jail term, a two year period of probation ...and a \$10,000 fine.

The linear amplifiers were shredded into scrap metal at the Southern Metals Company, Inc., in Charlotte, N.C.

## ARRL REQUESTS COMMENT EXTENSION....

The League has filed a Motion to Extend the comment period an additional 45 days on Docket 87-14, the Notice of Proposed Rulemaking which seeks to reallocate the first 2 megahertz of the 220-225 MHz band to narrow band (ACSB) Land Mobile use on an exclusive basis.

The present comment period closes on April 6th, reply comments due by April 21st. If the ARRL request is approved, the new comment period will close on May 21st. While the reduction of the band to 222-225 MHz is a great loss of very valuable amateur spectrum indeed, it should be pointed out that the band was shared spectrum awaiting final disposition.

The Amateur Radio Service has more or less been in limbo for the last eight years

waiting this decision. The ITU nations at WARC-79 allocated the band in Region 2 (North and South America) to the amateur, fixed and mobile services on a shared basis. Our government said that the amateur service could use the band until a further allocation plan was developed. (Amateurs do not have access to the 220-225 MHz band in any part of the world except Region 2.)

To voice your disapproval, send your comments to: Secretary, FCC; Washington, DC 20554. Heading should mention: Docket 87-14 - Amendment of Part 2 of the Commission's Rules Regarding the Allocation of the 216-225 MHz band. An original and five copies must be filed (eleven copies if you want each Commissioner to have a copy.)

## SPECULATION ON NEW FCC COMMISSIONER

It's fashionable these days to speculate on who the new FCC Commissioner will be. One of the five slots will become available (and possibly two) when Chairman Mark Fowler leaves this Spring. There is no shortage of candidates! We understand that President Reagan's new Chief of Staff, Howard Baker, will help in making the selection.

We have heard these names bandied about... Jerry Fritz (Fowler's assistant), Susan Wing (Washington attorney), Jack Smith (former FCC General Counsel), Allen Moore (minority chief of staff for the Senate Commerce Committee), Frederick Ryan (White House Director of Presidential Appointments), Robert Pettit (former legal adviser to Commissioner Dawson), Ira Gold (counsel to Senator Pete Wilson, R-CA), Anne Neal (former communications attorney), Peter Pitsch (FCC Chief of Plans and Policy) and Craig Smith (president of the Freedom of Expression Foundation and a communications professor).

Fritz supposedly is the leading contender, but Smith has the backing of VP George Bush, Gerald Ford and former FCC Chairman Dean Burch. Baker could also support his own candidate.

In addition, it is unclear whether Commissioner Mimi Dawson will stay on. One report had her headed for the Commerce Department ...leaving two Federal Communications Commissioner seats vacant.

W5YI-VEC  
P.O. Box 10101-N  
We have developed a complete Novice Package that enables an Amateur Radio Operator candidate to learn everything necessary to obtain a ham ticket without 1-1/2 Hr. Novice Code Test Preparation Tape 1-1/2 Hr. "Learn the Code" Cassette Tape  
W5YI NOVICE PACKAGE: \$21.95 + \$2.40 Shipping



## COMMON QUESTIONS: NEW NOVICE TEST

We have received quite a few phone calls about the new Novice examination. Here are some of the more common questions.

-----  
**Can you give a "credit certificate" for passing the Novice written (and/or code) examination? Where do you get them?**

Yes, you can issue the certificate for either the code or written examination. VE's who participate in the newer VE/VEC program will probably have ready printed certificates. If you don't have a credit certificate (CSCE - Certificate of Successful Completion of Examination) then a short note or letter signed by the two VE's that gave (either the code or theory) examination will do. You must also indicate the date and place (city/state) where the test element was passed.

-----  
**Do VE's for the Novice class now have to be accredited by a VEC? Can Novices be tested at regular VEC sessions?**

No, volunteer examiners for the Novice class do not have to be approved by anyone. There is basically no change over the previous system. The requirements for the VE are the same as previous - only two are required now instead of one. (Novice VE's must be 18 years old, hold at least a General Class operator license, not be related to the applicant, have a clean amateur radio record and not be in the amateur radio business.)

Although no expense reimbursement is allowed for the Novice (only) examinations, all VEC sessions will test Novices as a courtesy and forward the applications to the FCC.

-----  
**Where do the questions and the answers come from?**

A new 302 Novice question pool (in thirty sections) went into effect on March 21st. The entire Novice pool is available from the ARRL - or from us. (\$4.00 plus \$1.25 postage) The test is made up of 30 rather than 20 questions. They are selected by the administering VE's. One question is selected from each section. While you are required to use the questions verbatim (word for word), you don't have to use the multiple choice answers provided. You can supply your own answers - or you can just repeat the question and ask the applicant to "discuss" the answer.

Fill in the blank ...or even true/false answers are also acceptable. -----

**How is the Morse code test to be given. Where does the test come from?**

The code test is the responsibility of the two VE's. They may make up the code test and tape record it for later administration ...or it may be sent with a hand key or keyboard at the prescribed speed - 5 words per minute. It must contain every, repeat every, alphabet letter, numerals 1-0, certain punctuation (period, comma, slant bar, question mark) and the operating procedure signs (AR, SK and BT.) Twenty five characters in a row copied correctly passes as does answering 7 out of 10 questions that the VE's make up. Remember that punctuation and numerals (but not prosigns) count as two characters.)

-----  
**What do I do with the 'paperwork.'?"**

You must forward the successful Novice application within 10 days of administration to: FCC, P.O. Box #1020, Gettysburg, PA 17326. One of the VE's must retain the test papers (answer sheets) in their records for one year. (If you care to, you can also send the applications to us since we forward Form 610's to the FCC every day.) Advise the Novice applicant that it can take up to two months to receive their new Novice license in the mail. Give the applicant a copy of the Form 610 to use as evidence of passing the Novice requirements if the applicant plans to take upgrade examinations before his Novice license arrives. No new Novice (or higher class if a first license) may operate amateur radio equipment until the first operator license (and call sign) arrives. -----

**Where do I get the new Form 610's that have blanks for two VE's from?**

These are not yet available from the FCC. We understand that the ARRL is having the form professionally typeset. You might contact them regarding availability. The FCC did send each VEC a "draft" copy. We had Form 610 copies printed to tide us over until the GPO (Government Printing Office) has them. Send us a SASE if you need one or two (no charge.) The FCC also said that the June 1984 and July 1985 Form 610 versions may also be used, but you will have to use one line to put information from two VE's on it.



## IBM TO DEBUT NEW LOW END COMPUTERS

While earlier denied when we first published it, IBM is all set to introduce its "clone killer" - presently code named "Flashlight." The PC will list for around \$1500. (You will be able to buy it cheaper.) Supposedly it will be powered by an Intel 8086 operating at 8-MHz ...have 512K bytes of user memory and sport a high density (720K) floppy. The IBM announcement should take place next week.

A March 12th Wall Street Journal article on "IBM's Next PC Line" sent compatible makers reeling last week. (Compaq lost nearly 10% that day the article was published.) Tandy may not be effected ...their strength is in their distribution network.

IBM has been getting more aggressive of late ...and slimmer with an early retirement plan for some 10,000 employees. A recent Dataquest report forecasts an 8% rise in PC sales this year - mostly generated by Apple and the IBM clones. It is no secret that IBM has not been doing well! At a time when the Dow is at an all time high, IBM stock is selling near its 52-week low.

Big Blue will also unveil some upper end PC's. One rumor has it that IBM's (80386 processor) "Wrangler" Super-PC (\$9000) will have features that can not be copied by other firms.

The microcomputer industry is still in its infancy. The Apple I, Commodore PET and Radio Shack TRS-80 Model I were the first assembled PC's marketed - and this was only in August of 1977! Tandy has gone from zero PC sales to \$1.2 billion in just ten years.

IBM, Apple and Tandy are the number 1, 2 and 3 PC maker. Tandy's stock is selling near its 52-week high. Next week marks the 24th birthday of Radio Shack under Tandy. Tandy Leather Goods outlets acquired the nine store Boston based Radio Shack stores on April 4, 1963.

Unconfirmed rumors are that Tandy will soon introduce an 80386 computer, a laser printer and a MacIntosh compatible.

## THE TELEVISION HIT OF THE SEASON....

is not another sit-com - it's home shopping! Research firms estimate the sales medium will balloon from 1986's \$450 million to \$2 billion by the end of this year ...and to \$7.2 billion within four years. Nearly half of the nation will be able to shop by video this year.

The pioneer of shopping by TV is Home Shopping Network, Inc., of Clearwater, Florida. HSN went from startup in July 1985 to \$100 million in sales after only nine months of operation. They since have branched out from cable to broadcast television ...buying twelve UHF broadcasting stations at a cost of over \$200 million. HSN went public last year and was one of 1986's best performers.

They say that the average shopper places 15 orders a year at an average cost of \$32. A whole, home shopping firms have excellent reputations. HSN's merchandise delivery time is a week or less by UPS compared to 6 to 8 weeks for most catalog order houses.

Seeing the potential, Sears, Roebuck and Company joined forces with the QVC Network, Inc., a Philadelphia home shopping service last year. Between July and September, QVC raised \$30 million and quickly leased satellite transponder time. By November they had arranged to be on cable systems all across the nation reaching some 7.6 million subscribers. The QVC Network was operational in December from a 60,000 square foot combination TV studio/warehouse with a switchboard in place capable of handling some 10,000 calls a day. They too are now considering purchasing broadcast TV stations.

Not to be outdone, J.C. Penney now plans to get into video shopping. They will begin testing their Teleaction interactive home shopping service in 125,000 Chicago households by this Labor Day. If the concept goes over, it will be expanded.

Teleaction will be the first video home shopping service that a customer can control with a touch-tone phone. The technology was developed by, Cableshare a Canadian



# W5YI REPORT.....

Page #7

April 1, 1987

firm in which J.C. Penney has a 36% stake. To use Teleaction consumers dial a toll-free "800" number and key in their PIN, personal identification number.

By using the touch-tone phone keypad to access a product menu, the consumer can control what products and services are displayed in still frames on their TV screen. No computer or other equipment is necessary. The process of getting a product to appear on a viewer's television takes only about one second and about 15 consumers can share a "party line."

Teleaction will have many other goods and services available from over 40 different firms such as Spiegel, Ticketron, Marshall Field, American Express ...even real estate. The participating firms will be charged a sales fee. Consumers will have to fill out an application form before being able to order. Credit decisions will be left up to the individual businesses participating.

J. C. Penney has earmarked a startup budget of \$40 million for the Teleaction roll-out. The service will be provided free to viewers although they will be charged a delivery fee for the products ordered.

Dayton-Hudson, Minneapolis parent of the Target and Mervyn store chain, is the most recent to enter home TV shopping. They will start testing a one hour weekday show starting next week to run on broadcast TV stations. The show will feature only their own goods.

One thing is clear. We are in the midst of a major shift in the way consumers buy dry goods ...and everybody seems to be jumping on the bandwagon. Harbor Associates, a Connecticut electronic marketing consulting firm, said "Home TV shopping has the potential to change marketing the way airplanes changed the travel industry." It's already happening!

## VIDEOCIPHER II DESCRAMBLER SUIT....

General Instrument, new owner of the VideoCipher II scrambling system for backyard satellite stations, has filed suit in Miami Federal District Court against well known

satellite industry figures, Bob Cooper, Shaun Kenny and two others.

GI alleges that they violated federal copyright and antipiracy laws in connection with a "Descrambling Summit" they held last January. Cooper held the series of three seminars in the British West Indies (where he lives) at a cost of \$1,500 per person to attend.

The suit alleges that Cooper distributed imported pirate chips that defeated their VideoCipher satellite scrambling technology. Customs officials seized the pirate chips from attendees after the second seminar. Cooper then, General Instrument contends, offered to assist in illegally bringing the chips into the United States by using the mails or other means.

Kenny, a home satellite news programmer, is also charged with offering a service that modifies VideoCipher II descramblers to accept the pirate chips. The suit asks for damages and court costs "in excess of \$5 million."

General Instrument said nearly 120,000 VideoCipher II satellite programming descramblers have been sold - about 5% of which have been modified to illegally receive scrambled programming. The modification consists of replacing the original IC chips.

In an amnesty program, now over, General Instruments had offered owners of illegally modified VideoCipher II descramblers a free no-questions-asked retrofit to legal status if pay-TV pirates turned in their illegal decoders.

• The newly formed successor organization to SPACE, (the home satellite television industry group), the Satellite Broadcasting and Communications Association held their first convention in Las Vegas during early March. Most of the satellite programmers - HBO, Showtime/The Movie Channel, ESPN, Cinemax ...and others were there. The mood was one of friendly cooperation rather than hostility among the satellite users, dealers and programmers. Many programmers had special promotions for dealers that sold programming along with satellite hardware.



● Canada will be adopting the question bank Amateur Radio examination system presently employed in the U.S. The DOC (Department of Communications) has notified Canada's ham groups that (except for the difficult no-code digital examination) "question banks have been stocked with multiple choice answers." The DOC is encouraging amateurs to submit changes or revisions through the Canadian Amateur Radio Federation or the Canadian Radio Relay League. It also looks like volunteer examinations are coming too since the DOC has discontinued their quarterly examinations and is "studying the certification of private examiners." After June 1, examinations will be scheduled at DOC discretion as required. It all sounds familiar!

● If you hear a VX3 prefix from north of the border between June 22 and July 5th, it will be Coburg, Ontario (Canadian), amateurs commemorating their 150th Anniversary.

● AMSAT advises that they are placing OSCAR-10 "Off Duty" for two months. The satellite is being withdrawn from amateur use until after May 1st.

● Amateurs operating in the 420-450 MHz band within 100 miles of the city of Clear, Alaska, or Concrete, North Dakota, will now have to operate with a transmitter peak envelope power output not to exceed 50 watts to protect sensitive U.S. Air Force radar installations. Higher power may be authorized on a case-by-case basis by the appropriate FCC engineer-in-charge and the military. (FCC Order released March 16, 1987.)

● The FCC has refused a Freedom of Information Act request from a William J. Peer, a CBER seeking the identify of an individual who filed an interference to home electronic equipment entertainment complaint against him. FCC said release of such information would harm their future investigative efforts and ability to get information.

● LARESCO, a Calumet, Illinois, firm has Morse code teaching programs (with graphics) for the Apple II ...and soon for the Commodore 64/128 computers. Demo disk available for \$3.50. Tel: 312-891-3279 (P.O. Box 2018, 1200 Ring Road, Calumet, IL 60409)

## LAND MOBILE 421-430 MHz OPERATION

Detroit, Cleveland and Buffalo are above the mystical "line A" - an imaginary zig-zag border designated to protect Canadian land mobile communications from U.S. amateur operations. On October 1, 1985, the FCC allocated spectrum in these three cities to relieve the spectrum shortfall to U.S. Land Mobilers. A NPRM was released on May 15, 1986, proposing service rules for use of this spectrum.

A (§Part 90) Report and Order with an effective date of March 30, 1987, now divides the 421-430 MHz spectrum into 25 kHz channels and apportions the channels among three pools. Half the channels are assigned to the public safety pool, with the remaining half divided equally between business and industrial/land transportation pools. A single frequency coordinator is designated for each of the three pools. Channels will be assigned to Land Mobile applicants on a shared basis.

Base or control stations must be located within 30 miles of the center of Buffalo, 50 miles of the center of Detroit and in Cleveland at locations north of "line A" that are within 30 miles of the city center.

● Don't forget that application (license) fees must be paid by most business spectrum users effective April 1st. The FCC has set up two telephone hotlines. (202) 632-FEES for common carrier, mass media and equipment authorization inquiries and 717-337-1212 for private radio applications.

● The National Technological University is a fully accredited graduate level satellite college that has been operational since 1984. NTU classes are broadcast over GTE's Space-net G-Star I satellite. NTU awards Masters degrees in computer science, electrical engineering, engineering management and manufacturing systems. NTU classes are drawn from 22 member universities including Boston University, Georgia Tech and Purdue. Seven universities uplink their own courses. The cost is high! A one time fee (\$65,000-\$260,000) provides permanent access. AT&T, DEC, GE, IBM, DuPont, Honeywell, Kodak ...and others are subscribers.



● A national paging service has been developed that uses space technology. National Satellite Communications, Cleveland, has introduced CUE, which uses the WESTAR IV satellite to distribute a digital paging signal coast-to-coast. Users can be contacted by dialing a toll-free 800 number and an access code. The downlinked satellite signal is distributed locally at FM broadcast stations via unused subcarriers. Travellers in a city that is not part of the CUE network can retrieve their messages by phoning the CUE computer.

● A New Jersey MovieVision satellite broadcast company executive has been arrested in North Dallas for providing hard core adult movies to subscribers. Texas law allows for ownership of pornographic movies and tapes, but they may not be broadcast for profit. An undercover agent subscribed to the service for \$14.95 and a small satellite dish was installed at his home. The undercover agent (who made 40 pages of notes) and a municipal judge viewed the evidence. Charges of obscenity were filed.

● Clive Sinclair, the U.K.'s computer guru is back! You may remember the (very) small \$150 Sinclair computer that was built by Timex, the watch people. It was mail order advertised everywhere! His new \$300 laptop can't be called a Sinclair, however. He sold the rights to the name Sinclair when he got out of the computer business a year ago.

● Who's watching the TV commercials? A Seattle based audience measurer, the R.D. Percy Company, has developed a TV tuning meter, the VOXBOX, that not only tracks up to 138 television channels, but also can measure VCR recording and delayed playback! Another of their "people meters" have heat and body-mass sensors that measure the number of times people enter and leave a room when their TV set is on. It can even tell when the set is playing to an empty room. (Pets lack the heat and body mass to activate the meter.) When new viewers are detected, on-screen prompts ask them to identify themselves by using a hand-held device.

● AT&T has unveiled its first IBM-AT compatible microcomputer. The PC-6310 comes roughly 2½ years after IBM introduced

its PC AT. Most other firms already have AT clones on the market. Price is about \$3,000 (and higher) depending upon the configuration.

● Merchant Network, Inc., of Chicago, has inaugurated BILL - a 24 hour "bill payment by push-button telephone" system. For \$10 a year, customers can debit their bank accounts and remit electronically to 35 different companies - including utilities, department stores, oil companies, credit card firms ...and others. Firm plans to expand to several east coast cities later on this year.

● Dallas' H. Ross Perot has invested \$20 million in Next, Inc. a computer startup firm founded by Steve Jobs - inventor of the Apple Computer. Perot now owns 16% of the firm and a seat on its Board of Directors.

● A new interactive, visual CD (compact disc) system has been introduced by Philips International. Software has been developed that allows users to access specific data on a CD-I disc which is playable on a CD-I player. Users hook up the player (which can also play any CD disc on the market) to a TV or a personal computer. Each disc will hold the equivalent of 300,000 typed pages ...allowing such innovations as talking dictionaries and encyclopedias with pictures!

● "Radio Real Estate." Houses are selling themselves using a system called "Tune n'Tell". The latest gimmick to hit the Canadian real-estate market is houses and apartments (even automobiles) that are equipped with a short-range FM radio transmitter, tape recorder and a tape linked to the FM broadcast band. A sign outside the house or apartment indicates the FM channel to tune to. The transmitter only has a range of about a 100 feet. In Vancouver, radio personalities read the radio scripts! Churches are even using the gadget as a means for parishioners hearing sermons from the parking lot over their car radio - or for the hard of hearing sitting in pews to hear sermons while wearing "walkman" FM radios. At least one nightclub uses "Tune n'Tell" to give out a sample of its nightly entertainment ...a restaurant broadcasts its daily specials, menu and prices. Will the U.S. be next? Very low power FM broadcasting is apparently legal here.



April 1, 1987

● Another marketing innovation to watch are video catalogs that you buy for \$10 to \$19.95 and play on your VCR! Gift items and Fashion ...particularly lingerie - are big business! There are catalogs entitled "Silk in the South Pacific", "Mellow Mail" and "Videolog's Shopping at Home." Response rate (orders placed) is said to be a very high 4.5%.

● Be on the lookout for local phone companies switching from monthly flat rate billing to measured service billing for local calls. Several states are considering it. While they don't say so, phone companies see this pricing as a way to help disguise overall higher rates.

● Look for a big explosion in information delivery via FM radio sub-carriers! Some of the benefits? Very inexpensive, addressable, reliable transmission performance, delivery within seconds ...and no need for a computer. Information can even be "handed off" to printers ...or your personal computer. Expect your mail or newspaper someday to come via FM radio! Subcarrier transmission was deregulated by the FCC in 1983 and radio stations can do pretty much whatever they want to with their unused subcarrier capacity.

● While not yet on the market, Dual-Deck VCR's, video tape recorders that allow users to duplicate tape-to-tape (without the need for two machines) are now in production in South Korea and Japan. Some were shown at the recently concluded Las Vegas CES - Consumer Electronic Show. Motion picture makers say the major use of DD-VCR's will be to violate the copyright laws and they are planning to support restrictive DD-VCR legislation.

● The Department of Defense is very concerned about commercial satellites that have the capability to collect detailed photographs of the earth's surface. They say they pose a threat to U.S. national security. When needed, the news media uses space imagery. The RTNDA (Radio-Television News Directors Association) fear that new rules now being drafted restricting operation of remote sensing or "imaging" satellites will prevent them from collecting or showing news events that were collected from space ...such as last years Soviet nuclear power plant disaster.

● The Hertz Company will have cellular telephones available in rental cars in most major cities by July. Billing will be done automatically to a credit card number stored right in the telephone. (\$3.00 a day plus 95¢ minute for incoming and outgoing calls.)

● The FCC has fined Robert Baker, 20, of Louisville, Kentucky, \$750 for operating an unlicensed FM radio station. He rebroadcasted radio station (96.1 MHz) WSTO in Owensboro out on 98.5. Baker thought he was only boosting the signal from one room to another - only to find out that he broadcasted it all over Louisville! He said that reception was only good from his bedroom radio and he wanted to receive the FM station better on his living room receiver.

● The March 15th broadcasting trade newspaper, "Radio World" quotes FCC engineer Jeff Young, "Most (radio) pirates turn out to be frustrated DJ's or college kids that want to get on the air and run their own station." Young said the FCC nabs about 20 pirates a year, who could "face a maximum penalty of a year in jail and a \$100,000 fine. ...Hundreds go unnoticed." Young predicted an increase in the number of TV pirates. "...plentiful VCRs and devices that can relay a VCR's signal through a household can be modified to act as mini-TV transmitters."

● On February 4th, the FCC proposed a change in the K-W call letter regulations of broadcasting stations. For 55 years, stations west of the Mississippi River began with a "K" ...stations east of the Mississippi with a "W". Under the new proposal, stations would have the option of either prefix letter. The K-W restriction came out of the 1932 ITU convention in Madrid which also assigned "X" for MeXico and "C" for Canada. The NAB said that the FCC is trying to fix something that nobody has said is broke. There are a few broadcast station call signs that are exceptions to the W-K rule. The very first broadcast station in 1920 was an amateur radio operator broadcasting from a garage in Pittsburgh, Penna., under the call of KDKA. It is still on the air to this day. WBAP, here in Fort Worth, is another exception. The FCC said there is "no public interest justification for maintaining this geographic restriction."